

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**PPG Industries, Inc.
Lake Charles Complex – Incinerators Area
Lake Charles, Calcasieu Parish, Louisiana
Agency Interest Number: 1255
Activity Number: PER20050009
Proposed Permit Number: 2040-V1**

I. APPLICANT

Company:

PPG Industries, Inc.
P. O. Box 1000
Lake Charles, Louisiana 70602-1000

Facility:

Lake Charles Complex – Incinerators Area
1300 PPG Dr.
Lake Charles, Calcasieu Parish, Louisiana
Approximate UTM coordinates are 472.5 kilometers East and 3,343.5 kilometers North in Zone 15

II. FACILITY AND CURRENT PERMIT STATUS

PPG Industries, Inc.'s (PPG's) Lake Charles Complex is located at the intersection of I-10 and Loop I-210 near Westlake, Louisiana. The facility consists of three highly integrated business areas as described below.

- **Chlor/Alkali:** In this area, chlorine, caustic, and hydrogen are produced through the electrolysis of brine using diaphragm and mercury cell technology.
- **Derivatives:** In this area, chlorine is combined with ethylene and ethylene derivatives to produce chlorinated hydrocarbons and muriatic acid (hydrochloric acid).
- **Silicas:** In this area, sand is heated with either caustic or soda ash to produce sodium silicate, from which different grades of products are produced.

Electricity and steam required for the facility operations are produced in the Power/Utilities area. Transfer operations for raw materials and products involve the transfer to and from trucks, ships, barges, tank cars, hopper cars, and drums. Raw materials and products are also transferred via pipeline.

LAKE CHARLES COMPLEX – INCINERATORS AREA
AGENCY INTEREST NO. 1255
PPG INDUSTRIES, INC.
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

The whole complex is now organized into the following permitting units/areas: VC Production, Power/Utilities, Silicas, Complex Support Facilities, Chlor/Alkali Plant, Mercury Cells, Membrane Unit, Derivatives Shipping, Derivatives Docks, Wastewater Treatment Facilities, Greater EDC, Waste Recovery Unit, Per/Tri, TE-2, and Incinerators Area.

The Lake Charles Complex is a designated Part 70 source. It is currently operating under the following Part 70 operating permits:

Permit No.	Unit or Source	Date Issued
2359-V0	Complex Support Facilities	06/29/2006
2206-V0	Derivatives Docks	06/29/2006
2270-V0	Per/Tri Unit	06/29/2006
2269-V0	Wastewater Unit	06/29/2006
2231-V0	Mercury Cell	03/03/2006
3021-V0	Membrane Unit	03/03/2006
2085-V1	Silicas Unit	07/07/2006
897-V0	VC Production Unit	07/07/2005
2040-V0	Incinerators Area	02/21/2005
2695-V0	TE-2 Unit	02/21/2005
2350-V0	Greater EDC	02/21/2005
2216-V0	Waste Recovery Unit	06/29/2004
2798-V0	Chlor/Alkali Plant	04/15/2003
2229-V1	Derivatives Shipping Facility	06/29/2006
2106-V2	Power/Utilities	03/20/2006

In addition, PSD Permits PSD-LA-642 (11/23/1999) and PSD-LA-637 (M-1) (5/24/2002) and Acid Rain Permit 2646-IV1 (10/11/2006) were also issued to the complex.

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire dated May 7, 2005 were submitted by PPG Industries Inc. a Part 70 operating permit modification for above referenced facility. Additional information dated November 30, 2005 was also received.

Project

This modification is to incorporate the results of the consolidated performance test for No. 1 and No. 2 Incinerators. There are no physical or operational changes associated with this permit modification.

**LAKE CHARLES COMPLEX – INCINERATORS AREA
AGENCY INTEREST NO. 1255
PPG INDUSTRIES, INC.
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA**

Proposed Permit

Permit No. 2040-V1 will be permit modification of Part 70 Operating Permit No. 2040-V0, issued February 21, 2005, for the Incinerators Area.

Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	54.27	75.37	+ 21.10
SO ₂	0.41	0.51	+ 0.10
NO _x	84.10	94.90	+ 10.80
CO	47.41	47.11	- 0.30
VOC	1.45	1.03	- 0.42
Cl ₂	16.30	18.68	+ 2.38
HCl	48.82	35.58	- 13.24

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Prevention of Significant Deterioration

PSD review is not required since there are no physical or operational changes associated with this permit modification.

MACT Requirements

The facility is subject to LAC 33:III.5109 and 40 CFR Part 63, Subparts G and EEE. Detailed requirements are listed in the Specific Requirements Section of the permit.

Air Quality Analysis

Air analysis is not required.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition

**LAKE CHARLES COMPLEX – INCINERATORS AREA
AGENCY INTEREST NO. 1255
PPG INDUSTRIES, INC.
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA**

XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

No new permit shield item is added.

VI. PERIODIC MONITORING

No additional periodic monitoring is required.

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

LAKE CHARLES COMPLEX – INCINERATORS AREA
AGENCY INTEREST NO. 1255
PPG INDUSTRIES, INC.
LAKE CHARLES, CALCASIEU PARISH, LOUISIANA

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.